

ABSTRACT OF THE DISCLOSURE

A metallurgical furnace provided with a refractory lining and an outer furnace steel jacket, having copper cooling plates, wherein a flow of cooling medium flows through the cooling plates arranged between the furnace steel jacket and the refractory lining. Cooling medium pipes of the copper cooling plate provided for supplying and removing the cooling medium are guided through the furnace steel jacket to the exterior and are gas-tightly welded to the furnace steel jacket. The copper cooling plate is connected free of play in all spatial directions to the furnace steel jacket, in addition to attachment by way of the cooling medium pipes welded to the furnace steel jacket, by at least one fixed-point fastening element that is welded to the furnace steel jacket. The at least one fixed-point fastening element is arranged within at least one of the upper part and the lower part of the copper cooling plate in immediate proximity of the cooling medium pipes.